

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017672**Date Inspected:** 01-Nov-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC)**Location:** Shanghai, China

CWI Name:	N/A	CWI Present:	Yes	No			
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No	N/A
				Delayed / Cancelled:	Yes	No	N/A
Bridge No:	34-0006	Component:	OBG Trial Assembly				

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) at Trial Assembly Areas

Traveler Rail at Paint Shop # 3 and at East end of Paint Shop

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Traveler Rail at paint shop # 3 and east end of paint shop # 3 and # 2. The QA Inspector verified the bolt tension for bolts connecting the Angle to Traveler Rail web on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00530 dated November 01, 2010.

The bolt sizes used were M16 x 75 RC Lot # DHGM160023 and the final torque value established was 190 N-m.

The Manual Torque wrench used was Serial No. XO2-114.

The Traveler Rail on which bolt tension verification performed are identified as depicted below total 76 pieces.

10TR1-014

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10TR3-007
10TR3-036
10TR1-030
10TR4-004
10TR2-010
10TR1-001
10TR3-032
10TR2-004
10TR3-006
10TR2-020
10TR2-007
10TR1-012
10TR2-006
10TR1-028
10TR3-020
10TR3-023
10TR1-026
10TR3-004
10TR2-022
10TR1-010
10TR1-025
10TR3-011
10TR1-022
10TR3-030
10TR3-026
10TR1-017
10TR4-003
10TR2-011
10TR1-018
10TR2-008
10TR1-009
10TR2-021
10TR3-037
10TR1-027
10TR1-015
10TR2-019
10TR1-016
10TR3-024
10TR3-016
10TR1-004
10TR3-035
10TR2-005
11TR1-011
11TR3-018

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11TR1-008
11TR3-022
11TR1-025
11TR5-003
11TR5-007
11TR1-017
11TR7-002
11TR1-014
11TR5-002
11TR8-001
11TR1-020
11TR3-001
11TR3-009
11TR2-016
11TR1-022
11TR1-010
11TR1-004
11TR3-012
11TR11-002
11TR3-025
11TR1-028
11TR5-001
11TR1-002
11TR6-001
11TR7-001
11TR1-003
11TR5-004
11TR3-007
11TR2-012
11TR1-018
11TR2-013

The Manual Torque wrench used was Serial No. XO2-114.

Note: The QA Inspector measured the gap between the Angle to Traveler Rail flange and submitted the report to SMR Mr. Eric Tsang for review and disposition.

Please reference the pictures attached for more comprehensive details.

Segment 10AE (Catwalk at FL3)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Catwalk structure which is connected to Bottom Plate I-Ribs at FL3 area between Panel Points (PP) 86 and PP 87 for Segment 10AE.

Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed

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against the Notification No. 00532 Dated November 01, 2010.

Bolt sizes used were M16 x 45 RC Set# DHGM160021 and final torque required was 180 N-m.

Bolt sizes used were M16 x 50 RC Set# DHGM160011 and final torque required was 200 N-m.

The Manual Torque wrench used was Serial No. XO2-114.

Segment 10CE (Catwalk at FL3)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Catwalk structure which is connected to Bottom Plate I-Ribs at FL3 area between Panel Points (PP) 92 and PP 93 for Segment 10CE.

Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00532 Dated November 01, 2010.

Bolt sizes used were M16 x 45 RC Set# DHGM160021 and final torque required was 180 N-m.

Bolt sizes used were M16 x 50 RC Set# DHGM160011 and final torque required was 200 N-m.

The Manual Torque wrench used was Serial No. XO2-114.

Segment 10AW (Catwalk at FL3)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Catwalk structure which is connected to Bottom Plate I-Ribs at FL3 area between Panel Points (PP) 86 and PP 87 for Segment 10AW.

Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00532 Dated November 01, 2010.

Bolt sizes used were M16 x 45 RC Set# DHGM160021 and final torque required was 180 N-m.

Bolt sizes used were M16 x 50 RC Set# DHGM160011 and final torque required was 200 N-m.

The Manual Torque wrench used was Serial No. XO2-114.

Tower Lift 3 West and North (Grating Support Angle)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Tower Lift 3 West and Tower Lift 3 North for grating support angle. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00533 Dated November 01, 2010. Grating support angles are installed at 85 meter, 92 meter, 95 meter, 102 meter, 105 meter and 111 meter.

Bolt sizes used were M22 x 55 RC Set# DHGM220011 and final torque required was 457 N-m.

Bolt sizes used were M22 x 110 RC Set# DHGM220067 and final torque required was 500 N-m.

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The Manual Torque wrench used was Serial No. XO2-74.

Tower Lift 3 West and North (Grating Support Channel)

This Quality Assurance (QA) Inspector witnessed final bolt tension verification for Tower Lift 3 West and Tower Lift 3 North for grating support Channel. Inspected 10% on a random basis and found the tension to be in general compliance. Inspection was performed against the Notification No. 00533 Dated November 01, 2010. Grating support channel are installed at 85 meter, 92 meter, 95 meter, 102 meter, 105 meter and 111 meter.

Bolt sizes used were M20 x 50 RC Set# DHGM200009 and final torque required was 367 N-m.

The Manual Torque wrench used was Serial No. XO2-74.

Segment 10AE (Traveler Rail Brackets)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Traveler Rail Bracket to the Side Panel, Bike Path side at Panel Points (PP) 86 for Segment 10AE. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00534 dated November 01, 2010.

The bolt sizes used were M22 x 120 RC Lot # DHGM220053 and the final torque value established was 440 N-m.

The bolt sizes used were M22 x 160 RC Lot# DHGM220006 and the final torque value established was 340 N-m.

The Manual Torque wrench used was Serial No. XO2-779.

Segment 10AE (FL3 to Bottom Plate)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Bottom Plate to FL3 Flange at Panel Points (PP) 87 for Segment 10AE. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00534 dated November 01, 2010.

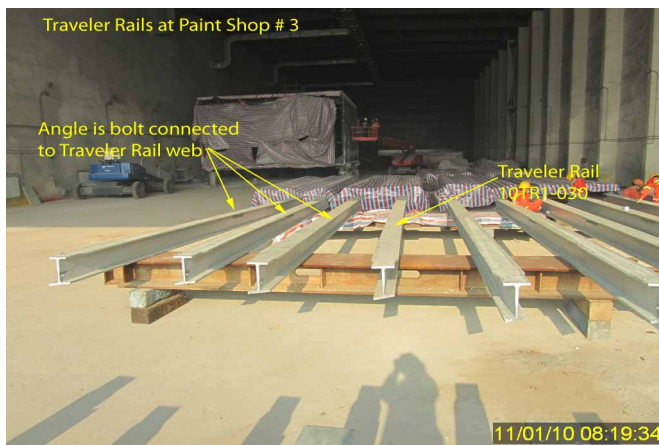
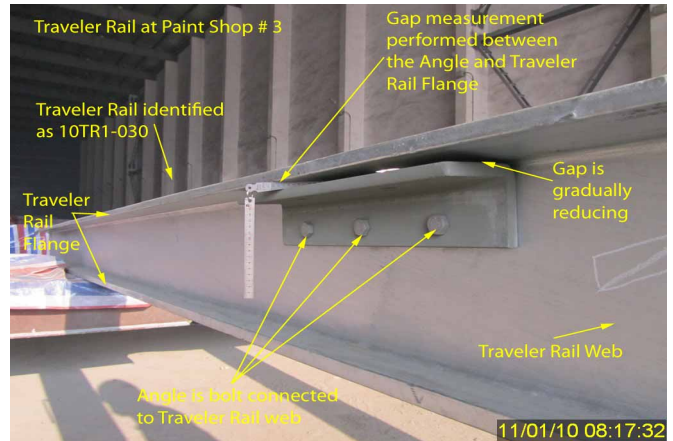
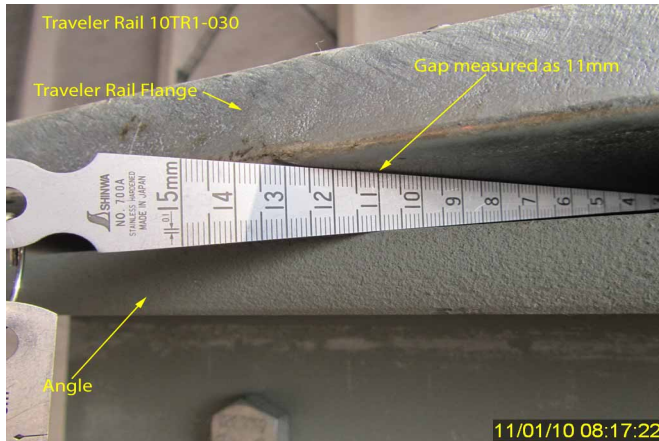
The bolt sizes used were M24 x 60 RC Lot # DHGM240014 and the final torque value established was 567 N-m.

The Manual Torque wrench used was Serial No. XO2-779.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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Summary of Conversations:

No relevant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Math,Manjunath	Quality Assurance Inspector
Reviewed By:	Dsouza,Christopher	QA Reviewer
